

ABSTRACT

Production of non-self-combustible gaseous product, combustible with added air or other oxygen source, by electric-arc processing of wetted fragmented carbon-containing feedstock (e.g., anthracite, or graphite, or residues of carbon) within enclosed high-temperature-resistant walls, thus defining a reaction zone wherein electric arc-ing of the wetted feedstock occurs. Included are specific methods of wetting the feedstock therein, and of generating electric arcing therethrough, forming desired gaseous product, and collecting same. Featured is a feedstock-compacting and electric-arching module, also means and methods of juxtaposing its electrodes to such feedstock so as as to compact it and to produce an electric arc therethrough, thereby effectuating the desired conversion of water and such wetted feedstock into non-self-combustible gaseous form, combustible (with added air or other source of gaseous oxygen) into an environmentally friendly combustion effluent substantially free of noxious gases and substantially free of harmful liquid and solid particulates as well.